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REMARKS

The present Response is intended to be fully responsive to all points of objection and/or rejection raised by the Examiner and is believed to place the application in condition for allowance. Applicants assert that the present invention is new, non-obvious and useful. Prompt consideration and allowance of the claims is respectfully requested.

**Summary of Interview** 

Applicants thank the Examiner for granting and attending the in-person interview held on October 28, 2008. Attending the interview were Examiners James Kish, Parikha S. Mehta, Nasir Shahrestani and Brian Cassler, as well as Applicant's attorney Caleb Pollack and Sharone Godesh, a representative of Given Imaging, Ltd ("Given"), the assignee of the present application.

Applicants' representatives provided a demonstration of an embodiment of the Given system, including a working imaging capsule (SB1), a reception (antenna array) and recording system (Data Recorder-DR2), and a RAPID<sup>®</sup> (Version 5.3.10) real-time display system (FUJITSU- SIEMENS computers, Product No. FPCPR56B, Part No. CP259484). Applicants' representatives showed a moving image stream of a gastrointestinal (GI) tract taken by a Given capsule. Applicants' representatives provided a "dummy" (non-functioning model) of a Given capsule to each Examiner.

The Examiners and Applicants representatives discussed the pending claims and the prior art that has been cited against those claims. No agreement was reached as to allowability of claims, although the Examiners agreed that U.S. Patent Application Publication No. 2002/0042562 (Meron) is unavailable for use against this application, as discussed below.

On November 3, 2008, the Examiner issued an Interview Summary that discussed the substance of the interview on October 28.

**Status of Claims** 

Claims 1-4, 7-11 and 18-23 are pending in the application and have been rejected.

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Claims 1 and 22 have been amended herein. Applicants state that these amendments add no new matter to the application.

## **Comment Regarding the Specification**

Applicants have amended the specification at page 14 to change the reference numeral for the battery (in Fig. 4B) from 12 to 11, as the reference numeral 12 had already been used to refer to the imager (see page 9, Fig. 2A). This amendment to the specification does not introduce new matter.

## **Comment Regarding the Drawings**

Applicants have amended Fig. 4B to change the reference numeral for the battery from 12 to 11, as the reference numeral 12 had already been used to refer to the imager (see Fig. 2A). This amendment to the drawings does not introduce new matter.

## 35 U.S.C. § 103 Rejections

In the April 29, 2008 Office Action, the Examiner rejected claims 1-4, 7-10, 18-20 and 22-23 under 35 U.S.C. § 103(a), as being unpatentable over Ueda et al. (US Patent No. 5,681,260) in view of any of Meron et al. (US Pat. App. 2002/0042562, "Meron"), Takahashi (US Pat. 4,500,181, "Takahashi '181), Brown (US Pat. 6,966,906), and Takahashi (US Pat. 4,942,867, "Takahashi '867). Further to Applicants' response dated August 29, 2008, Applicants traverse this rejection in view of the remarks that follow.

As discussed with the Examiner on October 28, Meron is unavailable for use against this application under 35 U.S.C. § 103(c), as Meron is prior art under § 102(e), and both Meron and the present application are assigned to Given Imaging, Ltd.

The Examiner states that Ueda et al. does not disclose a device wherein the illumination source and the image sensor are behind a single optical window, but the Examiner cites Takahashi '181, Takahashi '867 and Brown for the limitation of the illumination source and the image sensor are behind a single optical window, as claimed in currently pending claim 1 of the present application. During the interview, an Examiner argued that "behind a single window" is a broad term, because, if a plane is drawn to infinity along what is considered by the Examiner to be an optical window in the prior art, the

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Examiner contends that more components may be considered to be "behind" the window than what the Applicants claim are "behind" the window.

Applicants disagree with the Examiner's contention regarding the metaphysical extension of the optical window, since the physical structure of an optical window does NOT continue to infinity and has, by its very physical nature, a finite size and shape. As is clear from FIGS. 2A, 2B and 3 of the application, the physical structure of the optical dome 16/26 ends at the edges of the dome and in fact does not continue for infinity. Applicants note that claim 1 recites "behind" the window (dome), not "behind the plane of" or "behind an extended plane of" the window (dome). Thus, the Examiner's suggested alternate positioning is not possible, as objects at a remote distance away from the optical window to the side thereof, even if situated behind the extended plane of the window, cannot reasonably be considered to be "behind" the window. Accordingly, the Examiner's contention regarding the extended plane of the window is not relevant to the actual positioning of the elements of independent claim 1.

The Examiner also suggested that "behind" and "in front of' are relative terms that can be switched if needed. In addition, whether the terms "behind" and "in front of' are relative and can be switched if needed is irrelevant. Applicants assert that it is common parlance that "behind" a window (or camera or lens) signifies the side that is looking out through that window (or camera or lens), and "in front of" a window (or camera or lens) means the side that is being looked out at through that window (or camera or lens). What is intended, and what is shown in FIGS. 2A, 2B and 3 of the application, is that both the illumination source and the image sensor be behind and operate through a single optical window/dome.

Applicants note that independent claim 1 has been amended herein to recite that the "imaging unit comprises a single optical <u>dome</u>, an image sensor, <u>a lens</u> and an illumination source" and that "the image sensor, <u>the lens</u> and the illumination source are situated behind <u>and operate through</u> the single optical <u>dome</u>". Thus, independent claim 1 has been amended so that that the imaging unit requires a single optical dome, and the term "dome" has a generally understood meaning, as defined in Merriam-Webster's on-line dictionary at <a href="http://www.merriam-webster.com/dictionary">http://www.merriam-webster.com/dictionary</a> as: "1. (archaic): a stately building: mansion; 2.

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a large hemispherical roof or ceiling; 3. a natural formation or structure that resembles the dome or cupola of a building; 4. a form of crystal composed of planes parallel to a lateral axis that meet above in a horizontal edge like a roof; 5. an upward fold in rock whose sides dip uniformly in all directions; 6. a roofed sports stadium; 7. a person's head. With respect to physical structures, clearly definition 2 applies, i.e., a hemispherical roof or ceiling.

Applicants thereby clarify independent claim 1 to require that the imaging unit include a lens that is situated behind an optical dome and to require that, contrary to the Examiner's suggested scenario wherein objects at an infinite distance away from the optical window to the side thereof can somehow be "behind" the optical window, the image sensor, the lens and the illumination source must actually operate, i.e., provide their function, namely image sensing, focusing and illumination, respectively, through the single optical dome. This amendment adds no new matter to the application and finds support in the specification at page 9, lines 1-24 and at FIGS. 2A, 2B and 3.

Applicants assert that none of Takahashi '181, Takahashi '867, and Brown includes an illumination source, a lens and an image sensor that are situated behind and operate through a single optical dome.

Takahashi '181 describes an endoscope wherein a light guide 6 is placed behind a prism (10, 14, 18), but not behind a single optical dome, as required in amended independent claim 1. In addition, Takahashi '181 does not describe any "image sensor" as required in amended independent claim 1, described in the present application as, for example, a device generating analog or digital signals, or for example a CMOS or CCD imager (Applicants' Specification, page 9). Furthermore, Takahashi '181 does not describe any lens, distinct from an optical dome and situated therebehind, as the prism in Takahashi '181 cannot be considered by the Examiner to be both the optical dome and the lens, which are distinctly claimed in amended independent claim 1. Thus, Takahashi '181 does not teach or describe an illumination source, a lens and an image sensor that are all behind and operate through a single optical dome, as required in amended independent claim 1.

Takahashi '867 describes the distal end part of an endoscope wherein an image guide fiber bundle 19 is situated behind two separate windows for image production and for light production (illuminating window 13 and viewing window 14), each of which is separate from

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transparent cover 21. However, transparent cover 21 is not a dome, as commonly understood, since cover 21 has a flat face, as shown in FIG. 5, not a hemispherical shape. Thus, Takahashi '867 does not describe "a single optical dome" behind which an image sensor, a lens and an illumination source are all situated and through which all of the image sensor, the lens and the illumination source operate, as required in amended independent claim 1 of the present application.

Brown describes an endoscope wherein bundles of small diameter optical fiber (39) are brought into the field of view of lens (46) at the termination thereof, for illuminating and for viewing tissues in vivo. The Examiner referred to lens 46 as the optical window, and stated that it would have been obvious to use a single optical window as taught by Takahashi '181 (sic, Brown). However, independent claim 1 has been amended, as discussed above, to require that the imaging unit comprise a lens situated behind a single optical dome. While Brown shows a lens 46, Brown does not show or describe "a single optical dome" behind which an image sensor, a lens and an illumination source are situated and through which all of the image sensor, the lens and the illumination source operate. Lens 46 of Brown cannot be equivalent to the "optical dome", as required in Applicants' amended independent claim 1, since a distinct lens is also required as part of the imaging unit. Further, Brown does not include any "image sensor" behind an optical dome as required in amended independent claim 1.

For a combination of references to make obvious a claim, the combination must include each and every element of the claim. Since the combination of Ueda and any of Takahashi '181, Takahashi '867, and Brown does not include all elements of Applicants' amended independent claim 1, amended independent claim 1 is allowable over these combinations of references. Each of claims 2-4, 7-10, 18-20 and 22-23 depends, directly or indirectly, from claim 1, and is therefore likewise allowable.

Applicants request that the Examiner withdraw the rejection of claims 1-4, 7-10, 18-20 and 22-23 under 35 U.S.C. § 103(a), as being unpatentable over Ueda et al. in view of Takahashi '181, Brown or Takahashi '867.

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The Examiner rejected claim 11 under 35 U.S.C. § 103(a), as being unpatentable over Ueda in view of any of the other references used to reject claims 1-4, etc., and further in view of Ishikawa et al. (US Patent No. 6,264,611). The Examiner rejected claim 21 under 35 U.S.C. § 103(a), as being unpatentable over Ueda et al. in view of any of the other references used to reject claims 1-4, etc., and further in view of Snoke et al. (US Patent No. 5,846,221).

Each of claims 11 and 21 depends from amended independent claim 1, which, as described above, is allowable over Ueda et al. in view of Takahashi '181, Takahashi '867 and Brown, alone or in combination. (As discussed, Meron is not available as a prior art reference.) Neither Ishikawa nor Snoke cure the deficiencies of Ueda, Takahashi '181, Takahashi '867, and Brown. Therefore, claims 11 and 21 are likewise allowable, and Applicants request that the Examiner withdraw the rejection of claims 11 and 21.

In view of the foregoing amendments and remarks, Applicants assert that the pending claims are allowable. Their favorable reconsideration and allowance is respectfully requested.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, or if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to contact the undersigned at the telephone number below.

No fees are believed to be due in connection with this paper. However, if any such fees are due, please charge any such fees to deposit account No. 50-3355.

Respectfully submitted

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